

AN IMPLEMENTATION OF BLAZEDS TECHNOLOGY  
ON TM MODULE

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## **ABSTRACT**

The NX project is proposed by SCAN Associates Berhad (SCAN), with the aim of enhancing the previous version of network security solution by using the latest technologies. TM is one of the NX project's modules and expected to obtain a better performance in terms of interactivity between the system and the user, and the data transferring time. During internship, some research activities had taken place. The studies include several open source applications namely, Adobe Flex platform, BlazeDS Remoting and Messaging technology, JBoss application server and MySQL relational-database. The methodology used in this project is Rational Unified Process (RUP). RUP is an iterative software development process. Requirements are segregated into several cycles or iterations and each of the iterations will go through the whole process in waterfall life cycle. During the inception and elaboration phases, three types of documents based on Software Engineering methods and standards are produced, which are System Requirement Specification (SRS), System Architecture Design (SAD) and NX TM Module Test Cases. These documents are derived from the company's proprietary documentation guideline. Due to complexity of the project, the internship durations is insufficient to undergo the construction and transition phases. This project is an intellectual property of SCAN, hence the usage of abbreviation in project's title (NX) and project's modules (TM) is an inevitable.

## ABSTRAK

Projek NX adalah dicadangkan oleh SCAN Associates Berhad(SCAN), untuk tujuan meningkatkan prestasi perisian keselamatan rangkaian versi yang terdahulu dengan penggunaan teknologi yang terkini. TM, adalah salah satu modul dalam projek NX, ia dijangka akan memperolehi peningkatan prestasi dalam aspek interaktiviti antara sistem dengan pengguna, dan masa perpindahan data. Sepanjang latihan industri, aktiviti-aktiviti uji kaji telah dijalankan. Kajian-kajian tersebut merangkumi beberapa aplikasi *open source* iaitu, Adobe flex platform, BlazeDS Remoting and Messaging teknologi, pelayan aplikasi JBoss dan pangkalan data MySQL. Methodologi yang digunakan untuk projek ini adalah *Rational Unified Process* (RUP). RUP adalah satu kaedah atau proses pembangunan perisian yang *iterative*. Keperluan-keperluannya telah dibahagikan kepada beberapa kitaran atau ulangan dan setiap ulangan tersebut akan melalui keseluruhan proses dalam *waterfall life cycle*. Sepanjang fasa *inception* dan fasa *elaboration*, tiga jenis dokumen yang berdasarkan kaedah dan piawaian kejuruteraan perisian telah dihasilkan, iaitu *System Requirement Specification (SRS)*, *System Architecture Design (SAD)* and *NX TM Module Test Cases*. Dokumen-dokumen tersebut adalah berpandu kepada tatacara dokumentasi syarikat. Disebabkan oleh kerumitan projek tersebut, tempoh *latihan* industri adalah tidak mencukupi bagi melalui fasa *construction* dan fasa *transition*. Projek tersebut merupakan harta intelektual bagi SCAN, oleh itu penggunaan nama singkatan dalam tajuk projek (NX) dan modul projek (TM) adalah tidak dapat dielakkan.

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## **CHAPTER 1**

### **INTRODUCTION**

This chapter introduces the company, SCAN Associates Berhad (SCAN) and the overview of NX project. The project objective, project scope, project deliverable and project plan are also discussed in this chapter.

#### **1.1 Company Background**

SCAN Associates Berhad (SCAN), is a Malaysia premier and trusted Information and Communication Technology (ICT) security solutions provider. Incorporated in September year 2000, SCAN is a Multimedia Super Corridor (MSC) status company and an affiliated company of Commerce Asset Ventures Sdn. Bhd., a wholly-owned venture capital arm of Bumiputra-Commerce Holdings Berhad.

With a solid track record of providing ICT security solutions and building its intellectual property, SCAN delivers internationally recognized and enterprise-wide solutions and services.

SCAN is backed by relevant Malaysian Government Agencies, such as the Multimedia Development Corporation and Malaysia Debt Ventures, to spearhead ICT security initiatives in Malaysia as well as overseas. In addition, SCAN currently houses

the highest concentration of internationally certified ICT security professionals in Malaysia. SCAN has also penetrated into the international market especially in Indonesia and the Middle East by leveraging on its knowledge capital, to provide leading-edge ICT security solutions.

The vision of SCAN is to become a world class and trusted ICT security solutions provider. The mission of SCAN are as a dedicated team of professionals, responsible in securing the infrastructure by using the best technology, processes and innovative solutions and delivering world-class expertise, in accordance with international standards.

Dato' Aminuddin Baki Esa is the company Chief Executive Officer (CEO). The whole organization structure of SCAN is stated in **Appendix A** and the company logo is depicted in Figure 1.1.



**Figure 1.1: Company Logo**

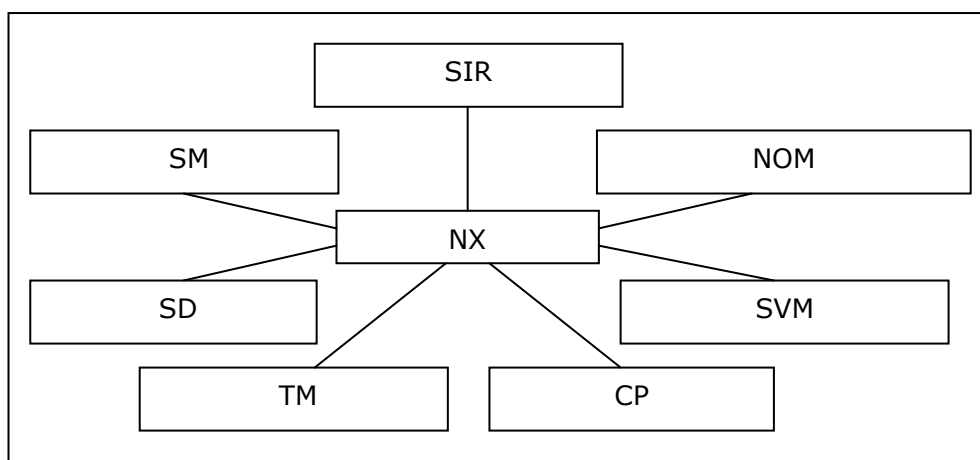
## **1.2 Project Background**

The primary goal of NX project is to enhance the previous version of network security solution by using the latest technologies. NX provides a solutions suite in order to prevent, detect and respond to the vulnerabilities, threats and events in real time as well as to support future Security Operation Center (SOC) services. The security analysts, pentesters and the managers are able to monitor, assess and generate reports



more rapidly through a dynamic and interactive Rich Internet Application (RIA) user interface.

Figure 1.2 illustrates the modules of NX project.



**Figure 1.2: Modules of NX Project**

TM is one of the project's modules as shown in Figure 1.2. The objective of TM is to facilitate the real-time security alerts to the SOC. This project report will focus on TM module only.

### **1.3 Project Objective**

The objectives of project are:

- i. To obtain a better interactivity and response on client side using Rich Internet Application (RIA) platform, Flex.
- ii. To study the feasibility of BlazeDS Remoting and Messaging technology in order to be implemented in the TM module for the purpose of improving data processing and transferring time.

- iii. To formulate proper documents using the company standard guideline for SCAN, such as SRS, SAD and NX TM Module Test Cases.

## **1.4 Project Scope**

The scopes of the project are:

- i. Involved in one of the NX project's modules, which called TM.
- ii. Explore and study the new technologies, which are BlazeDS and Flex.
- iii. The core functionality is to display an interactive user interface through the Remoting and Messaging technology.
- iv. All the data are obtain from MySQL database.
- v. Produce SRS, SAD and NX TM Module Test Cases documents based on the company standard guideline.
- vi. Along the product development, the users that involved are Security Analyst, Senior Security Analyst and Security Expert.

## **1.5 Importance of the Project**

This project would bring a great benefit to SCAN to achieve its vision, that is to become a world class and trusted ICT security solutions provider. This project is not only for the company internal use, but also intends to become a commercial product to compete with the worldwide Managed Security Service (MSS) providers in future. The main importance of TM module is allows the security consultants perform security assessment through a dynamic and interactive user interface easily and faster.

## **1.6 Project Deliverables**

The main deliverables of the project are the standard documents, as follows:

- i. System Requirement Specification (SRS)
- ii. System Architecture Design (SAD)
- iii. NX TM Module Test Cases
- iv. Thesis

## **1.7 Project Plan**

For the information regarding the project schedule is stated in the Gantt chart, please refer to **Appendix B**.

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